ABSTRACT

A system and method for providing adaptive rate selection to mitigate impulse-like noise and allow for interleaving and RS coding, while not excessively delaying data transmission, is disclosed. Generally, the system utilizes a memory and a processor, wherein the processor is programmed by software stored within the memory to perform the step of reading a specified data transmission delay rate for a channel utilized for data transmission. A Reed Solomon encoder is utilized by the adaptive rate system, which performs the steps of: reading a specified number of redundant bytes in a Reed Solomon frame; determining a level of impulse protection control from the number of redundant bytes in the Reed Solomon frame and a maximum code word length; and determining a number of symbols comprised within the Reed Solomon frame. In addition, an interlever is utilized for determining an interlever depth via use of said number of symbols comprised within the Reed Solomon frame and the specified data transmission delay rate for the channel.